

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P845577

Luminaire Tested: SQ2R-PH1-100D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PH1-100D-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

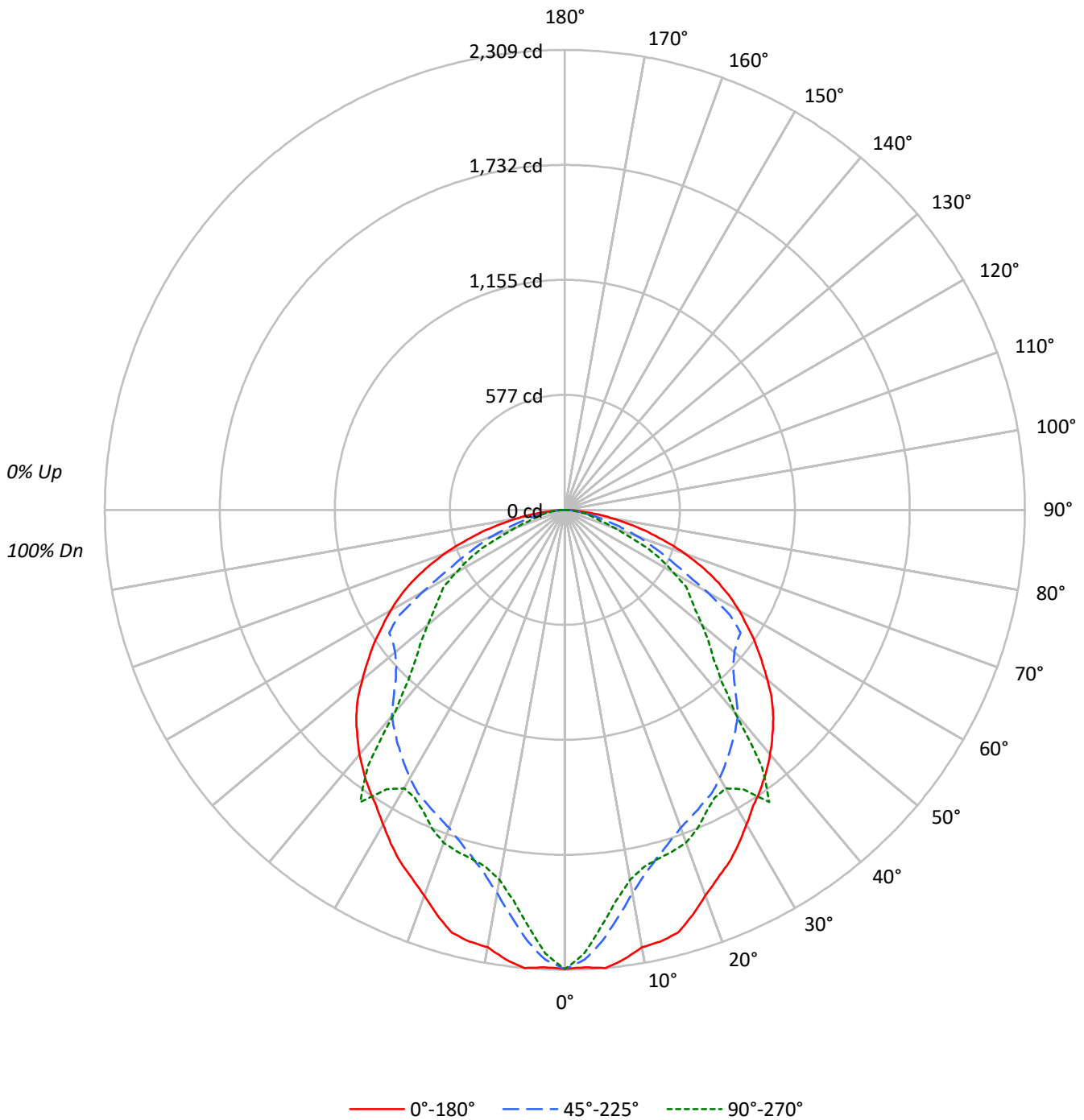
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5092.0 lumens
Efficiency: N/A
Efficacy: 135.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9969
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85				85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72				72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61				61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53				53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46				46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40				40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36				36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32				32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29				29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26				26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37213	37213	37213
5°	37426	35187	34015
10°	36564	32034	30919
15°	36729	30131	30315
20°	35419	29201	30558
25°	34769	29067	29847
30°	34015	28987	30091
35°	33758	28657	35272
40°	33788	28473	27963
45°	33798	27389	24085
50°	33325	27927	22584
55°	32901	30308	21667
60°	32576	26557	20324
65°	32004	21532	17677
70°	30227	18326	12628
75°	26949	13818	9576
80°	22018	8973	8973
85°	13820	8133	6095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33798 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.3	4.0
10°-20°	533.0	10.5
20°-30°	781.7	15.4
30°-40°	947.5	18.6
40°-50°	930.8	18.3
50°-60°	810.9	15.9
60°-70°	562.2	11.0
70°-80°	265.3	5.2
80°-90°	57.1	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1518.1	29.8
0°-40°	2465.6	48.4
0°-60°	4207.4	82.6
0°-90°	5092.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5092.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2309	2307	2171	2103	2099	217
15°	2197	1952	1803	1790	1814	614
25°	1952	1654	1632	1682	1675	898
35°	1713	1377	1454	1574	1790	1073
45°	1480	1088	1200	1246	1055	1139
55°	1169	846	1077	776	770	1044
65°	838	581	564	463	463	824
75°	432	296	222	158	154	457
85°	75	48	44	35	33	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2304.8	2304.8	2304.8	2304.8	2304.8
2.5°	2298.2	2328.9	2260.9	2234.6	2230.2
5°	2309.2	2307.0	2171.0	2103.0	2098.7
7.5°	2276.3	2217.1	2059.2	1982.4	1978.0
10°	2230.2	2127.2	1953.9	1885.9	1885.9
12.5°	2219.3	2041.6	1868.4	1822.3	1835.5
15°	2197.3	1951.7	1802.6	1789.5	1813.6
17.5°	2131.6	1866.2	1747.8	1769.7	1798.2
20°	2061.4	1800.4	1699.5	1752.2	1778.5
22.5°	2002.2	1736.8	1664.5	1723.7	1734.6
25°	1951.7	1653.5	1631.6	1682.0	1675.4
27.5°	1890.3	1578.9	1600.9	1631.6	1629.4
30°	1824.5	1513.1	1554.8	1585.5	1614.0
32.5°	1760.9	1436.4	1504.4	1587.7	1662.3
35°	1712.7	1377.2	1453.9	1574.5	1789.5
37.5°	1660.1	1304.8	1403.5	1500.0	1625.0
40°	1603.1	1225.9	1350.9	1484.6	1326.7
42.5°	1541.6	1164.5	1271.9	1456.1	1162.3
45°	1480.2	1087.7	1199.5	1245.6	1054.8
47.5°	1410.1	1030.7	1146.9	1059.2	978.1
50°	1326.7	973.7	1111.8	947.4	899.1
52.5°	1245.6	914.5	1087.7	855.3	826.7
55°	1168.8	846.5	1076.7	776.3	769.7
57.5°	1085.5	778.5	984.6	703.9	721.5
60°	1008.8	712.7	822.4	642.5	629.4
62.5°	927.6	649.1	671.0	563.6	550.4
65°	837.7	581.1	563.6	462.7	462.7
67.5°	741.2	511.0	473.7	399.1	342.1
70°	640.3	443.0	388.2	302.6	267.5
72.5°	532.9	370.6	300.4	234.6	193.0
75°	432.0	296.0	221.5	157.9	153.5
77.5°	331.1	225.9	162.3	122.8	122.8
80°	236.8	162.3	96.5	94.3	96.5
82.5°	149.1	98.7	65.8	70.2	70.2
85°	74.6	48.2	43.9	35.1	32.9
87.5°	19.7	17.5	11.0	11.0	11.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	23.70	25.29	24.07	25.61	25.92	22.41	24.00	22.78	24.32	24.63
	3H	25.78	27.21	26.16	27.54	27.90	23.50	24.93	23.88	25.26	25.62
	4H	26.55	27.89	26.95	28.24	28.62	23.75	25.09	24.15	25.44	25.82
	6H	27.07	28.32	27.49	28.68	29.07	23.93	25.17	24.34	25.54	25.93
	8H	27.22	28.40	27.64	28.79	29.19	23.98	25.16	24.40	25.55	25.95
	12H	27.29	28.42	27.72	28.80	29.23	24.00	25.14	24.43	25.52	25.95
4H	2H	24.17	25.51	24.57	25.86	26.24	23.14	24.48	23.54	24.83	25.21
	3H	26.34	27.46	26.75	27.86	28.26	24.39	25.50	24.80	25.90	26.30
	4H	27.18	28.19	27.62	28.61	29.04	24.69	25.70	25.12	26.11	26.55
	6H	27.81	28.69	28.27	29.13	29.59	24.94	25.82	25.39	26.26	26.71
	8H	28.00	28.82	28.46	29.26	29.73	25.01	25.83	25.47	26.27	26.74
	12H	28.10	28.83	28.58	29.31	29.78	25.05	25.79	25.53	26.26	26.73
8H	4H	27.26	28.08	27.72	28.52	28.99	24.96	25.78	25.42	26.22	26.69
	6H	27.94	28.62	28.44	29.11	29.58	25.26	25.94	25.76	26.43	26.90
	8H	28.17	28.78	28.68	29.29	29.77	25.37	25.98	25.88	26.49	26.97
	12H	28.32	28.85	28.83	29.35	29.91	25.45	25.98	25.95	26.47	27.04
12H	4H	27.24	27.98	27.73	28.46	28.93	24.99	25.72	25.47	26.20	26.67
	6H	27.92	28.53	28.43	29.04	29.52	25.30	25.90	25.81	26.41	26.90
	8H	28.19	28.72	28.69	29.21	29.78	25.45	25.98	25.95	26.47	27.04